



**UNITED STATES DEPARTMENT OF COMMERCE**  
**United States Patent and Trademark Office**

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#3

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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00/957,431 10/24/97 HOLLAND

078111

EXAMINER

GALLAGHER, J

ART UNIT

PAPER NUMBER

1735

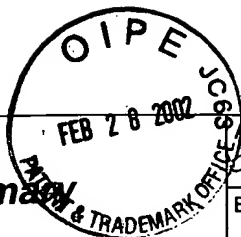
DATE MAILED:

06/04/01

IN62/0604  
RHODES COATS BENNETT, L.L.P.  
P.O. BOX 2974  
GREENSBORO NC 27402

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks



# Office Action Summary

Application No.

08/957431

Applicant(s)

Examiner

Group/Art Unit

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 12 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-24 is/are pending in the application.  
Of the above claim(s) 22-24 is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-21 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☒ Claim(s) 1-24 are subject to restriction or election requirement.

## Application Papers

- ☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
  - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_.

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 13
- ☒ Notice of Reference(s) Cited, PTO-892
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

Office Action Summary

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

2. Restriction to one of the following inventions is required under 35 U.S.C. § 121:

I. Claims 1-21, drawn to lamination methods, classified in Class 156, subclass 309.6, 192.

II. Claims 23-24, drawn to a composite laminate, classified in Class 442, subclass 304.

3. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the laminate can be made by using a different temperature in lamination and decreasing the contact time by applying pressure under vacuum.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art, as shown by the above classification, and since the fields of search

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are not co-extensive, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Mr. Robert Rhodes on 01 May 2001 (call made by Examiner N. Torres-Velazquez, Art Unit 1771) a provisional election was made WITHOUT traverse to prosecute the invention of Group I, claims 1-21. Affirmation of this election must be made by applicants in replying to this Office action. Claims 22-24 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicants are reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

7. Claims 1 and 3 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Specifically, EITHER the word "yarn" (claim 1 line 3) OR the word "fiber" (claim 3 line 1) should be used consistently throughout, for the sake of proper antecedent basis.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-7 and 9-14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yagi et al.

Yagi et al. disclose that it is known to form a composite laminate article (e.g. fabric) via a process wherein a fabric (woven, non-woven, knitted etc.) is made up of UHMWPE fiber is laminated/bonded to a thermoplastic (e.g. low or high density polyethylene) fiber in a suitable heat and pressure lamination process i.e. by employing appropriate process variables or conditions (viz. P, T, t) to satisfactorily effect the aforementioned lamination. (Figs. 6-7, Abstract, column 5 lines 34-62, column 11 lines 1-57, column 14 line 23 thru column 15 line 5, column 16 lines 9-11). All of the essential limitations of these claims are held to be satisfied by this reference, the use by these patentees of the same fibers and film materials as those employed by applicants being held to ensure

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that the desired properties envisioned by applicants (viz. cut and puncture resistance) are effected and achieved.

10. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Yagi et al. in view of Rossetti.

Rossetti discloses that in the production of composite laminates of fabric and thermoplastic (e.g. polyethylene) film substrates (i.e. of the type/similar to those of Yagi et al.) in a heat and pressure lamination process (i.e. a process of the type employed in Yagi et al.), it is known to maintain the lamination pressure while the laminate cools i.e. to cool under pressure (Fig. 1, Abstract, column 3 line 27-36, N.B. column 4 lines 20-38 and especially lines 35-38), such that it would have been obvious to one of ordinary skill in this art to employ such a conventional, documented cooling under pressure technique in/in conjunction with the process of Yagi et al., wherever deemed

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desirable and/or necessary; mere utilization of a known (and apparently beneficial) technique involved.

12. Claims 15-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yagi et al. taken in combination with Rerolle et al.

Rerolle et al. disclose that it is known to effect lamination between substrates composed of a fabric and a thermoplastic (e.g. polyethylene) film via a process wherein the substrates are contacted, wound into a roll or bundle and then heated such that a laminated/bonded composite is formed (Abstract, column 2 lines 4-10), such that it would have been obvious to one of ordinary skill in this art to employ the technique/methodology of Rerolle et al. in/in conjunction with the process of Yagi et al. i.e. in place of the corresponding, analogous lamination procedure/technique employed therein, mere substitution of one such known technique for another being involved; alternatively, it would have been obvious to one so skilled to employ the (specific) substrate materials of Yagi et al. in the process of Rerolle et al. in place of the corresponding, analogous (generic) substrate materials employed therein, mere substitution of one known set of substrate materials for another being involved. The sum total of the teachings of these applied, combined references taken as a whole

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is held to render applicants' invention obvious to one of ordinary skill in this art. (In re McLaughlin 170 USPQ 209).


13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. J. Gallagher whose telephone number is (703) 308-1971. The examiner can normally be reached on M-F from approximately 8:30 A.M. to 5 P.M. The examiner can also be reached on alternate N/A.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball, can be reached on (703) 308-2058. The fax phone number for this Group is (703) 305-3599.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661/0662.

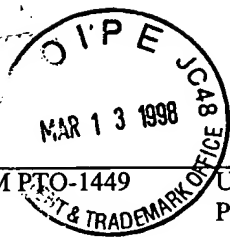
  
JJGallagher:cdc

May 29, 2001



JOHN J. GALLAGHER  
PRIMARY EXAMINER  
ART UNIT 1733





APPLICANT

Sheet 1 of 2

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY DKT NO. 3781-011	SERIAL NO. 08/957,431
	APPLICANT John E. Holland et al.	
	FILING DATE October 24, 1997	GROUP 1,733

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CL.	SUBCL.	FILING DATE IF APPROP.
JTG ↓	A	4,597,818	7/1986	Aoyama et al.	156	308.2	
	B	4,957,804	9/1990	Hendrix et al.	428	212	
	C	4,983,433	1/1991	Shirasaki	422	36.1	
	D	5,160,472	11/1992	Zachariades	264	136	
	E	5,160,767	11/1992	Genske et al.	428	35.98	
	F	5,169,697	12/1992	Langley et al.	428	57	
	G	5,248,364	9/1993	Liu et al.	156	244.11	
	H	5,266,390	11/1993	Garland	428	216	
	I	5,284,540	2/1994	Roth et al.	156	160	
	J	5,286,576	2/1994	Srail et al.	428	517	

FOREIGN PATENT DOCUMENTS

		DOCUMENT NO.	DATE	COUNTRY	CL.	SUBCL.	TRANSLATION	
							YES	NO
JTG	K	DE 4441842 A1	6/1995	Germany			X /	

OTHER DOCUMENTS (Incl. Author, Title, Date, Pertinent pages, etc.)


EXAMINER GALLAGHER	DATE CONSIDERED 15 MAY 2001
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Form PTO-1449)



FORM PTO-1449 DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY DKT NO. 3781-011	SERIAL NO. 08/957,431
	APPLICANT John E. Holland et al.	
	FILING DATE October 24, 1997	GROUP 1733

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CL.	SUBCL.	FILING DATE IF APPROP.
JH ↓	L	5,389,448	2/1995	Schirmer et al.	428	517	
	M	5,443,874	8/1995	Tachi et al.	428	36.7	
	N	5,445,883	8/1995	Kobayashi et al.	428	355	
	O	5,460,884	10/1995	Kobylyvker et al.	428	373	

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NO.	DATE	COUNTRY	CL.	SUBCL.	TRANSLATION	
							YES	NO

## OTHER DOCUMENTS (Incl. Author, Title, Date, Pertinent pages, etc.)


EXAMINER <i>GAUQUER</i>	DATE CONSIDERED <i>15 MAY 2001</i>
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Form PTO 948 (Rev. 8-98)

U.S. DEPARTMENT OF COMMERCE - Patent and Trademark Office

Application No.

08/957.431

## NOTICE OF DRAFTSPERSON'S PATENT DRAWING REVIEW

The drawing(s) filed (insert date) 12/24/97 are:A. ☐ approved by the Draftsperson under 37 CFR 1.84 or 1.152.B. ☒ objected to by the Draftsperson under 37 CFR 1.84 or 1.152 for the reasons indicated below. The Examiner will require submission of new, corrected drawings when necessary. Corrected drawing must be submitted according to the instructions on the back of this notice.**1. DRAWINGS. 37 CFR 1.84(a):** Acceptable categories of drawings:  
Black ink. Color.☐ Color drawings are not acceptable until petition is granted.

Fig(s) \_\_\_\_\_

☐ Pencil and non black ink not permitted. Fig(s) \_\_\_\_\_**2. PHOTOGRAPHS. 37 CFR 1.84 (b)**☐ 1 full-tone set is required. Fig(s) \_\_\_\_\_☐ Photographs not properly mounted (must use bristol board or

photographic double-weight paper). Fig(s) \_\_\_\_\_

☐ Poor quality (half-tone). Fig(s) \_\_\_\_\_**3. TYPE OF PAPER. 37 CFR 1.84(e)**☐ Paper not flexible, strong, white, and durable.

Fig(s) \_\_\_\_\_

☐ Erasures, alterations, overwritings, interlineations,

folds, copy machine marks not accepted. Fig(s) \_\_\_\_\_

☐ Mylar, velum paper is not acceptable (too thin).

Fig(s) \_\_\_\_\_

**4. SIZE OF PAPER. 37 CFR 1.84(f):** Acceptable sizes:☐ 21.0 cm by 29.7 cm (DIN size A4)☐ 21.6 cm by 27.9 cm (8 1/2 x 11 inches)☐ All drawing sheets not the same size.

Sheet(s) \_\_\_\_\_

☐ Drawings sheets not an acceptable size. Fig(s) \_\_\_\_\_**MARGINS. 37 CFR 1.84(g):** Acceptable margins:

Top 2.5 cm Left 2.5cm Right 1.5 cm Bottom 1.0 cm

SIZE: A4 Size

Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm

SIZE: 8 1/2 x 11

Margins not acceptable. Fig(s) \_\_\_\_\_

Top (T) \_\_\_\_\_ Left (L)

Right (R) \_\_\_\_\_ Bottom (B)

**6. VIEWS. 37 CFR 1.84(h)**

REMINDER: Specification may require revision to correspond to drawing changes.

Partial views. 37 CFR 1.84(h)(2)

☐ Brackets needed to show figure as one entity.

Fig(s) \_\_\_\_\_

☐ Views not labeled separately or properly.

Fig(s) \_\_\_\_\_

☐ Enlarged view not labeled separately or properly.

Fig(s) \_\_\_\_\_

**7. SECTIONAL VIEWS. 37 CFR 1.84 (h)(3)**☐ Hatching not indicated for sectional portions of an object.

Fig(s) \_\_\_\_\_

☐ Sectional designation should be noted with Arabic or

Roman numbers. Fig(s) \_\_\_\_\_

**8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i)**☐ Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned so that the top becomes the right side, except for graphs. Fig(s) \_\_\_\_\_**9. SCALE. 37 CFR 1.84(k)**☐ Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction.

Fig(s) \_\_\_\_\_

**10. CHARACTER OF LINES, NUMBERS, & LETTERS.**

37 CFR 1.84(i)

☒ Lines, numbers & letters not uniformly thick and well defined, clean, durable, and black (poor line quality).Fig(s) 1-3**11. SHADING. 37 CFR 1.84(m)**☐ Solid black areas pale. Fig(s) \_\_\_\_\_☐ Solid black shading not permitted. Fig(s) \_\_\_\_\_☐ Shade lines, pale, rough and blurred. Fig(s) \_\_\_\_\_**12. NUMBERS, LETTERS, & REFERENCE CHARACTERS.**

37 CFR 1.84(p)

☐ Numbers and reference characters not plain and legible.

Fig(s) \_\_\_\_\_

☐ Figure legends are poor. Fig(s) \_\_\_\_\_☐ Numbers and reference characters not oriented in the same direction as the view. 37 CFR 1.84(p)(1)

Fig(s) \_\_\_\_\_

☐ English alphabet not used. 37 CFR 1.84(p)(2)

Figs \_\_\_\_\_

☐ Numbers, letters and reference characters must be at least .32 cm (1/8 inch) in height. 37 CFR 1.84(p)(3)

Fig(s) \_\_\_\_\_

**13. LEAD LINES. 37 CFR 1.84(q)**☐ Lead lines cross each other. Fig(s) \_\_\_\_\_☐ Lead lines missing. Fig(s) \_\_\_\_\_**14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(i)**☐ Sheets not numbered consecutively, and in Arabic numerals beginning with number 1. Sheet(s) \_\_\_\_\_**15. NUMBERING OF VIEWS. 37 CFR 1.84(u)**☐ Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) \_\_\_\_\_**16. CORRECTIONS. 37 CFR 1.84(w)**☐ Corrections not made from prior PTO-948 dated \_\_\_\_\_**17. DESIGN DRAWINGS. 37 CFR 1.152**☐ Surface shading shown not appropriate. Fig(s) \_\_\_\_\_☐ Solid black shading not used for color contrast.

Fig(s) \_\_\_\_\_

COMMENTS

## INFORMATION ON HOW TO EFFECT DRAWING CHANGES

### 1. Correction of Informalities--37 CFR 1.85

File new drawings with the changes incorporated therein. The application number or the title of the invention, inventor's name, docket number (if any), and the name and telephone number of a person to call if the Office is unable to match the drawings to the proper application, should be placed on the back of each sheet of drawings in accordance with 37 CFR 1.84(c). Applicant may delay filing of the new drawings until receipt of the Notice of Allowability (PTOL-37). Extensions of time may be obtained under the provisions of 37 CFR 1.136. The drawing should be filed as a separate paper with a transmittal letter addressed to the Drawing Processing Branch.

### 2. Timing for Corrections

Applicant is required to submit **acceptable** corrected drawings within the three-month shortened statutory period set in the Notice of Allowability (PTOL-37). If a correction is determined to be unacceptable by the Office, applicant must arrange to have acceptable corrections resubmitted within the original three-month period to avoid the necessity of obtaining an extension of time and paying the extension fee. Therefore, applicant should file corrected drawings as soon as possible.

Failure to take corrective action within set (or extended) period will result in **ABANDONMENT** of the Application.

### 3. Corrections other than Informalities Noted by the Drawing Review Branch on the Form PTO-948

All changes to the drawings, other than informalities noted by the Drawing Review Branch, **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.